

U.S. Serial No. 09/875,084
Attorney's Docket No. 010671
Amendment under 37 CFR §1.111

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently Amended): An optical scanning-type touch panel, comprising:

an optical scanning unit for angularly scanning light in a plane substantially parallel to a predetermined region;

a mirrored deflecting unit for deflecting scanning light of said optical scanning unit; and

a light receiving unit for receiving the deflected scanning light, for detecting a scanning light cut-off position, which is produced in said predetermined region by an indicator, based on a light receiving output of said light receiving unit that corresponds to a scanning angle,

wherein said deflecting unit has an asymmetrical shape about an optical axis.

Claim 2 (Original): The optical scanning-type touch panel as set forth in claim 1,

wherein the shape of said deflecting unit is asymmetrical in a scanning direction.

Claim 3 (Original): The optical scanning-type touch panel as set forth in claim 1,

wherein the shape of said deflecting unit is asymmetrical in a height direction.

Claim 4 (Original): The optical scanning-type touch panel as set forth in claim 3,
wherein a height of said deflecting unit is substantially equal to a height of said optical scanning unit.

Claim 5 (Original): The optical scanning-type touch panel as set forth in claim 4,
wherein said predetermined region has a rectangular shape, and a width of said deflecting unit is substantially equal to a scanning surface opening width of said optical scanning unit in scanning a diagonal section of said predetermined region with light.

Claim 6 (Previously Presented): An optical scanning-type touch panel, comprising:
an optical scanning unit for angularly scanning light in a plane substantially parallel to a predetermined region;

a deflecting unit for deflecting scanning light of said optical scanning unit; and

a light receiving unit for receiving the deflected scanning light, for detecting a scanning light cut-off position, which is produced in said predetermined region by an indicator, based on a light receiving output of said light receiving unit that corresponds to a scanning angle,

wherein said optical scanning-type touch panel satisfies a condition

$$d/2 + w < D \tan \delta$$

where D is a distance from said optical scanning unit to said deflecting unit, w is a width on said deflecting unit from a path of said scanning light to an end on said predetermined region side, d is a beam width of said scanning light, and δ is a scanning start angle.

Claim 7 (Previously Presented): An optical scanning-type touch panel, comprising:

a light retro-reflector provided outside a predetermined region;

an optical scanning unit for angularly scanning light in a plane substantially parallel to said predetermined region; and

a light receiving unit for receiving reflected light of scanning light of said optical scanning unit from said light retro-reflector, for detecting a scanning light cut-off position, which is produced in said predetermined region by an indicator, based on a light receiving output of said light receiving unit that corresponds to a scanning angle,

wherein said optical scanning unit is provided with a protective film having a maximum reflectance at an angle of incidence corresponding to a scanning angle at which a quantity of said reflected light is minimum.

Claim 8 (New): An optical scanning-type touch panel, comprising:

an optical scanning unit for angularly scanning light in a plane substantially parallel to a predetermined region;

a deflecting unit for deflecting scanning light of said optical scanning unit; and

a light receiving unit for receiving the deflected scanning light, for detecting a scanning light cut-off position, which is produced in said predetermined region by an indicator, based on a light receiving output of said light receiving unit that corresponds to a scanning angle,

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wherein said deflecting unit has an asymmetrical shape about an optical axis and an asymmetrical shape in a height direction,

wherein a height of said deflecting unit is substantially equal to a height of said optical scanning unit, and

wherein said predetermined region has a rectangular shape, and a width of said deflecting unit is substantially equal to a scanning surface opening width of said optical scanning unit in scanning a diagonal section of said predetermined region with light.